

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re U.S. Patent Application of Roy et al.      )  
  )  
Application No. 10/629,759                      ) Group Art Unit: 1781  
  )  
Filed: July 30, 2003                              ) Examiner: Vera Stulii  
  )  
For: Prevention of Synthetic Color Fading      ) Confirmation No. 6813  
      in Beverages Using Botanically              )  
      Derived Color Stabilizers                    )

**REPLY BRIEF**

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Sir:

Pursuant to 37 C.F.R. § 41.41, Appellant submits this Reply Brief to the Board of Patent Appeals and Interferences in response to the Examiner's Answer dated September 15, 2010.

## **Status of the Claims**

Claims 1, 3-7, 10-13, 15-21, 24 and 25 are pending and are appealed

## **Grounds of Rejection to be Reviewed on Appeal**

Claims 1, 3-7, 10-11, 15-17, 19-21 and 24-25 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Akihiko et al (JP 2001323263) with ICS (Institute for Coffee Studies) and Horn-Ross cited as evidence.

Claims 12-13 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Akihiko et al (JP 2001323263) in view of COFFEE (COFFEE: RELATED BEVERAGES).

Claim 18 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Akihiko et al (JP 2001323263) in view of Taguchi et al (JP 2002138024).

## **Argument**

### **A. Claims 1, 3-7, 10-11, 15-17, 19-21 and 24-25**

#### **1. Akihiko Reference**

Examiner's Answer states that "regarding 'synthetic color' limitation, Akihiko et al disclose industrial riboflavin preparation." (Answer, p. 5). Applicant respectfully disagrees. It appears that the Examiner is equating industrial with synthetic. Industrial appears to just mean large scale, not whether the riboflavin is natural or synthetic. Further, Akihiko specifically discloses only *natural* colorants. For example, the specification lists riboflavin in an example of a colorant tested, along with other natural colors (benikouji, anato, deyunariera and curcme rhizome) and their corresponding trade names. (See Akihiko translation, [0015]).

Akihiko does not disclose that riboflavin is a synthetic color. To the contrary, it follows from the Akihiko disclosure that the riboflavin listed in example 4 (Akihiko translation, p. 3 [0014]), is a natural colorant as well. Further support that the riboflavin disclosed in Akihiko is a natural colorant can be found in the specification. For example, riboflavin is named in a laundry list of natural coloring matter (Akihiko translation, [0003]). Likewise, the riboflavin coloring matter is used in a list of the

exemplary natural colors used in the trials described in Akihiko, and riboflavin is not distinguished from the other natural colors. (See Akihiko translation, [0025]).

## **2. Functional Equivalents**

The Examiner's Answer, in counter-arguing the Appellant's Brief, focuses on "functional equivalents" as a basis for the obvious rejections rendered. These arguments are respectfully misplaced. As previously stated by Appellant, because of the marked difference in chemical structures and the mechanisms by which synthetic colors and natural colors are believed to fade, the issue is not whether or not natural and synthetic colors both have the function of adding color to a product, but by what mechanism is fading inhibited for each individual color.

Furthermore, chemical structures need to be extremely close to provide an expectation of similar properties, and here the structures are not extremely close. (See e.g., MPEP 2144.09). Therefore, there could have been no reason from the disclosure of Akihiko to suggest that the recited botanically derived color stabilizers could be effectively employed to inhibit fading of the recited synthetic colors based on inhibition of fading of natural colors, merely because synthetic colors and natural colors are all colors.

Moreover, for the reasons described in Applicant's Brief, Horn-Ross and ICS do not provide supporting evidence to render independent claims 1, 20 and 21 obvious, nor are the claims depending from these independent claims (3-7, 10-11, 15-17, 24-25) rendered obvious in light of these references.

## **B. Claims 12-13**

With respect to claims 12-13, Applicant respectfully disagrees with the position that Akihiko in view of COFFEE renders these dependent claims obvious. Just because Akihiko discloses a natural color fading inhibitor including coffee bean extract, one of ordinary skill in the art would not look to COFFEE to remedy the defects in Akihiko and arrive at the inventions of claims 12-13. The discussion [in COFFEE] is limited to the substitutability of coffee with roasted hawthorn root and roasted dandelion as it relates solely to taste, and not for their substitutable chemical properties. Thus, Akihiko in view of COFFEE falls far short of rendering claims 12-13 obvious.

### **C. Claim 18**

The abstract provided by Examiner does not contain a sufficient disclosure to support the arguments proposed in the Answer. (See Answer, p. 13). For instance, Applicant strongly disagrees that “Taguchi et al discloses that coffee and chestnut extracts are functional equivalents in the stable dyeing composition comprising various coloring botanical extracts.” The *only* mention of coffee and chestnut extracts is found in the abstract under the title of “novelty” which is reproduced below:

NOVELTY - A hair dye comprising staining components obtained from powdered extract of root, stalk, flower, fruit or seed of plants, such as Rubia akane, turmeric, sappanwood, cork tree, Sophora japonica, cochineal, chestnut, onion and/or coffee, is new.

This passage does not disclose, teach or suggest that coffee and chestnut extracts are “functional equivalents in the stable dyeing composition comprising various coloring botanical extracts,” rather, it discloses that chestnut and/or coffee extract can be used as a staining component in a hair dye.

Contrary to the arguments set forth in the Answer, Taguchi fails to disclose that the extracts included in the color stable composition taught by Taguchi may include coloring agents that serve as color stabilizers. Once again, from the translation provided, Taguchi discloses a “hair dye containing plant derived staining components” that “exhibits excellent time-dependent stability, durability... on applied hairs.” Taguchi does not disclose, teach or suggest which components, if any, of the hair dye aid in the color stability. Thus, Taguchi fails to remedy the defects in Akihiko and therefore the combination of these references cannot render claim 18 obvious.

### **D. Specification**

Applicant respectfully disagrees with the argument in Examiner’s Answer that Applicant attempts to import limitations from the specification into the claims. Rather, Applicant cites to the specification (such as the Background of the Invention section) to further support Applicant’s arguments. In particular, Applicant cites to the specification

to highlight the differences between the structure and properties of natural and synthetic colorants.

**D. Conclusion**

For the reasons argued above and in the Appeal Brief, the Final Office Action has failed to make a *prima facie* case of obviousness of claims 1, 3-7, 10-13, 15-21, 24 and 25. Reversal of the obviousness rejections and allowance of the subject application are respectfully requested.

Respectfully submitted,

Date: November 5, 2010

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